This seminar will explore considerations in the engineering, construction and development of multi-cellular models that recapitulate important paracrine and endocrine cellular communications that are not well modeled in simple cell culture systems. Models of human cleft lip/palate, steroid signaling, and prostate cancer progression will be presented.

Brian received a BS from Michigan Technological University in 2004 and after returning to academia in 2007, earned a PhD in Molecular and Environmental Toxicology in Chris Bradfield’s lab studying responses to environmental stimuli in mice (light, pollutants, hypoxia). Since 2014 he’s been a postdoc and assistant scientist in the Microtechnology Medicine and Biology (MMB) lab headed by David Beebe and developed expertise in creating practical devices and assays for 21st century toxicology and precision medicine. He’s spun-off a company, won over 100K in prize money from the EPA/NIH as well as several other State and Federal grants including a K99.